



GAU 1633

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Attorney Docket No.: BIV-044.01
(21459-4401)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Miao et al.)
Serial No.: 08/900,220) Group Art Unit: 1633
Filed: July 24, 1997) Examiner: Wilson, M.
Title: Method of Treating Dopaminergic)
and GABA-nergic Disorders)

CERTIFICATE MAILING UNDER 37 C.F.R. §1.8(a)

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Sir:

Submitted herewith on Form PTO-1449 is a list of references known to Applicants and/or their Attorney/ Agent in compliance with the requirements of 37 CFR 1.56. A copy of each reference listed is also being submitted. Since this Information Disclosure Statement is being submitted before the mailing date of the first Office Action on the merits, no fee is due.

Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached Form 1449.

This submission does not represent that a search has been made or that no better art exists. Nor does it constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim

in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with this submission, please charge the fee to our Deposit Account, No. 06-1448.

Respectfully submitted,

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Form PTO-1449	Docket Number (Optional) BIV-044.01(21459-4401)	Application Number 08/900,220
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		
Applicant Miao et al.		Group Art Unit 1633
Filing Date July 24, 1997		

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	KV 5, 759, 811	06/02/98	Epstein et al.	435	69.1	11/13/96
	KW 5, 223, 408	06/29/93	Goeddel et al.	435	69.3	07/11/91
	KX 4, 456, 687	06/26/84	Howard Green	435	241	12/01/80
	KY 5, 789, 543	08/04/98	Ingham et al.	530	350	12/30/93
	KZ 5, 844, 079	12/01/98	Ingham et al.	530	350	12/14/94
	LA 5, 585, 087	12/17/96	Lustig et al.	424	9.2	06/08/94
	LB 5, 837, 538	11/17/98	Scott et al.	435	325	10/06/95
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	LD 5,643, 915	07/01/97	Andrulis, Jr. et al.	514	279	06/06/95
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	LF WO 90/02809	3/22/90	PCT	C 12P	21/00		
	LG WO 92/15679	9/17/92	PCT	C 12N	15/10		
	LH WO 94/28016	12/08/94	PCT	C 07K	13/00		
	LI WO 95/23223	08/31/95	PCT	C 12N	15/00		
	LJ WO 96/ 09806	04/04/96	PCT				
	LK WO 96/11260	04/18/96	PCT	C 12N	5/00		
	LL WO 96/16668	06/06/96	PCT	A 61K	38/17		
	LM WO 96/17924	06/13/96	PCT	C 12N			
	LN WO 97/11095	03/27/97	PCT	C 07K	14/475		
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	LQ WO 98/14475	04/09/98	PCT	C 07K	14/47		
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MF	JP 02 27 36 10		Japan				
MG	JP 04 30 55 28		Japan				

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(Including Author, Title, Date, Pertinent Pages, Etc.)

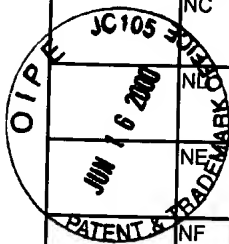
MH	Anderson, R. et al., "Maintenance of ZPA signaling in cultured mouse limb bud cells", <i>Devel.</i> <u>117</u> :1421-1433 (1993).						
MI	Angier, N., "Biologists find key genes that shape patterning of embryos", <i>New York Times</i> , Jan. 11, 1994, C-1.						
MJ	Basler, K. and G. Struhl, "Compartment boundaries and the control of <i>Drosophila</i> limb pattern by Hedgehog protein", <i>Nature</i> <u>368</u> :208-214 (1994).						
MK	Basler, K. et al., "Control of cell pattern in the neural tube: Regulation of cell differentiation by <i>dorsalin-1</i> , a novel TGF β family member", <i>Cell</i> <u>73</u> :687-702 (1993).						
ML	Bass, S. et al., "Hormone phage: An enrichment method for variant proteins with altered binding properties", <i>PROTEINS: Structure, Function, and Genetics</i> <u>8</u> :309-314 (1990).						
MM	Bejsovec, A. and E. Wieschaus, "Segment polarity gene interactions modulate epidermal patterning in <i>Drosophila</i> embryos", <i>Development</i> <u>119</u> :501-517 (1993).						
MN	Bienz, M., "Homeotic genes and positional signalling in the <i>Drosophila</i> viscera", <i>TIG</i> <u>10</u> :22-26 (Jan. 1994).						
MO	Bitgood, M. and A. McMahon, "Hedgehog and Bmp genes are coexpressed at many diverse sites of cell-cell interaction in the mouse embryo", <i>Dev. Biol.</i> <u>172</u> (1):126-138 (1995).						
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MR	Brookes, J., "We may not have a morphogen", <i>Nature</i> <u>350</u> :15 (1991).						
MS	Bumcrot, D. A. et al., "Proteolytic processing yields two secreted forms of sonic hedgehog", <i>Mol. Cell. Biol.</i> <u>15</u> (4):2294-2303 (April 1995).						
MT	Bumcrot, D. A. and A. McMahon, "Sonic hedgehog: Making the gradient", <i>Chem. Biol.</i> <u>3</u> (1):13-16 (Jan 1996).						
MU	Bumcrot, D. A. and A. McMahon, "Somite differentiation. Sonic signals somites", <i>Curr. Biol.</i> <u>5</u> (6):612-614 (June 1995).						
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MW	Coffman, et al., "Xotch, the <i>Xenopus</i> homolog of <i>Drosophila</i> notch", <i>Science</i> <u>249</u> :1438-1441 (1990).						
MX	Concordet, J. and P. Ingham, "Developmental biology. Patterning goes sonic", <i>Nature</i> <u>375</u> (6529):279-280 (May 1995).						

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MY	Curry, et al., "Sequence analysis reveals homology between two proteins of the flagellar radial spoke", <i>Mol. Cell. Biol.</i> <u>12</u> :3967-3977 (1992).
MZ	Davidson, E. H., "How embryos work: a comparative view of diverse modes of cell fate specification", <i>Develop.</i> <u>108</u> :365-389 (1990).
NA	Davis, A. P. and M. R. Capecchi, "Axial homeosis and appendicular skeleton defects in mice with a targeted disruption of <i>hoxd-1</i> ", <i>Devel.</i> <u>120</u> :2187-2198 (1994).
NB	Dickinson, W., "Molecules and morphology: Where's the homology", <i>TIG</i> <u>11</u> (4):119-120 (1995).
NC	Dingemans, M. A. et al., "The expression of liver-specific genes within rat embryonic hepatocytes is a discontinuous process", <i>Differentiation</i> <u>56</u> :153-162 (1994).
ND	Dollé, P. et al., "Coordinate expression of the murine <i>Hox-5</i> complex homeobox-containing genes during limb pattern formation", <i>Nature</i> <u>342</u> :767-772 (1989).
NE	Dollé, P. et al., "Disruption of the <i>Hoxd-13</i> gene induces localized heterochrony leading to mice with neotenic limbs", <i>Cell</i> <u>75</u> :431-441 (1993).
NF	Echelard, Y. et al., "Sonic hedgehog, a member of a family of putative signaling molecules, is implicated in the regulation of CNS polarity", <i>Cell</i> <u>75</u> :1417-1430 (1993).
NG	Ekker, S. et al., "Distinct expression and shared activities of members of the hedgehog gene family of <i>xenopus laevis</i> ", <i>Devel.</i> <u>121</u> (8):2337-2347 (Aug. 1995).
NH	Ericson, J. et al., "Sonic hedgehog induces the differentiation of ventral forebrain neurons: a common signal for ventral patterning within the neural tube", <i>Cell</i> <u>81</u> (5):747-756 (June 1995).
NI	Ettelaie, C. et al., "The effect of lipid peroxidation and lipolysis on the ability of lipoproteins to influence thromboplastin activity", <i>Biochim. Biophys. Acta.</i> <u>1257</u> (1):25-30 (June 1995).
NJ	Fahmer, K. et al., "Transcription of <i>H-2</i> and <i>Qa</i> genes in embryonic and adult mice", <i>EMBO J.</i> <u>6</u> :1265-1271 (1987).
NK	Fallon, J. F. et al., "FGF-2: Apical ectodermal ridge growth signal for chick limb development", <i>Science</i> <u>264</u> :104-107 (1994).
NL	Fan, C. et al., "Long-range sclerotome induction by sonic hedgehog: Direct role of the amino-terminal cleavage product and modulation by the cyclic AMP signaling pathway", <i>Cell</i> <u>81</u> :457-465 (5 May 1995).
NM	Fietz, M. et al., "The hedgehog gene family in <i>Drosophila</i> and vertebrate development", <i>Devel. (Suppl.)</i> :43-51 (1994).
NN	Forbes, A. J. et al., "Genetic analysis of <i>hedgehog</i> signaling in the <i>Drosophila</i> embryo", <i>Devel.</i> <u>119</u> (Suppl.):115-124 (1993).
NO	Francis, P. H. et al., "Bone morphogenetic proteins and a signaling pathway that controls patterning in the developing chick limb", <i>Devel.</i> <u>120</u> :209-218 (1994).
NP	Gallop, M. et al., "Applications of combinatorial technologies to drug discovery. 1. Background and peptide combinatorial libraries", <i>J. Med. Chem.</i> <u>37</u> (9):1233-1251 (1994).
NQ	Gérard, M. et al., "Structure and activity of regulatory elements involved in the activation of the <i>Hoxd-11</i> gene during late gastrulation", <i>EMBO J.</i> <u>12</u> :3539-3550 (1993).
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NU	Halpern, M. E. "Induction of Muscle Pioneers and Floor Plate is Distinguished by the Zebrafish no tail Mutation", <i>Cell</i> <u>75</u> : 99-111 (1993).
NV	Hamburger, V. and H. L. Hamilton, "A series of normal stages in the development of the chick embryo", <i>J. Morph.</i> <u>88</u> :49-92 (1951).
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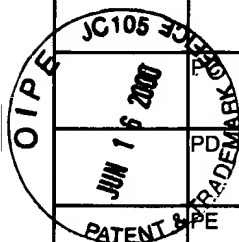


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	NX	Haramis, A. et al., "The limb deformity mutation disrupts the SHH/ FGF-4 feedback loop and regulation of 5' <i>HoxD</i> genes during limb pattern formation", <i>Devel.</i> <u>121</u> (12):4161-4170 (Dec. 1995).
	NY	Hardy, A. et al., "Gene expression, polarising activity and skeletal patterning in reaggregated hind limb mesenchyme", <i>Devel.</i> <u>121</u> (12):4329-4337 (Dec. 1995).
	NZ	Harmon, C. S. et al., "Evidence that activation of protein kinase A inhibits human hair follicle growth and hair fibre production in organ culture and DNA synthesis in human and mouse hair follicle organ culture", <i>British J. Dermatol.</i> <u>136</u> :853-858 (1997).
	OA	Hatta, K. et al., "The cyclops mutation blocks specification of the floor plate of the zebrafish central nervous system", <i>Nature</i> <u>350</u> :339-341 (1991).
	OB	Heberlein, U. et al., "The TGB β homolog <i>dpp</i> and the segment polarity gene <i>hedgehog</i> are required for propagation of a morphogenetic wave in the <i>Drosophila</i> retina", <i>Cell</i> <u>75</u> :913-926 (1993).
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	OD	Hidalgo, A. and P. Ingham, "Cell patterning in the <i>Drosophila</i> segment: spatial regulation of the segment polarity gene <i>patched</i> ", <i>Devel.</i> <u>110</u> :291-301 (1990).
	OE	Hooper, J. and M. Scott, "The <i>Drosophila patched</i> gene encodes a putative membrane protein required for segmental patterning", <i>Cell</i> <u>59</u> :751-765 (1989).
	OF	Hynes, R. O., "Integrins: A family of cell surface receptors", <i>Cell</i> <u>48</u> :549-554 (1987).
	OG	Ingham, P. W., "Signaling by hedgehog family proteins in <i>Drosophila</i> and vertebrate development", <i>Curr. Opin. Genet. Dev.</i> <u>5</u> (4):478-484 (Aug 1995).
	OH	Ingham, P. W., "Hedgehog points the way", <i>Current Biology</i> <u>4</u> (4):347-350 (1994).
	OI	Ingham, P. W., "Localized <i>Hedgehog</i> activity controls spatial limits of wingless transcription in the <i>Drosophila</i> embryo", <i>Nature</i> <u>366</u> :560-562 (1993).
	OJ	Ingham, P. W. and A. Hidalgo, "Regulation of wingless transcription in the <i>Drosophila</i> embryo", <i>Devel.</i> <u>117</u> :283-291 (1993).
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	ON	Jiang, J. and G. Struhl, "Protein kinase A and hedgehog signaling in <i>Drosophila</i> limb development", <i>Cell</i> <u>80</u> (4):563-572 (Feb. 1995).
	OO	Jessel, T. M. and D. A. Melton, "Diffusible factors in vertebrate embryonic induction", <i>Cell</i> <u>68</u> :257-270 (1992).
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	OQ	Johnson, R. L. et al., "Patched overexpression alters wing disc size and pattern: transcriptional and post-transcriptional effects on hedgehog targets", <i>Devel.</i> <u>121</u> (12):4237-4245 (Dec. 1995).
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OX	Kornblihtt, A. R. et al., "Primary structure of human fibronectin: differential splicing may generate at least 10 polypeptides from a single gene", <i>EMBO J.</i> <u>4</u> :1755-1759 (1985).
OY	Kornfeld, R. and S. Kornfeld, "Assembly of asparagine-linked oligosaccharides", <i>Ann. Rev. Biochem.</i> <u>54</u> :631-664(1985).
OZ	Krauss, S. et al., "Expression of the zebrafish paired box gene <i>pax[zb-b]</i> during early neurogenesis", <i>Devel.</i> <u>113</u> :1193-1206 (1991).
PA	Krauss, S. et al., "A functionally conserved homolog of the Drosophila Segment polarity gene <i>hh</i> is expressed in tissues with polarizing activity in zebrafish embryos", <i>Cell</i> <u>75</u> :1431-1444 (1993).
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PD	Lee, J. J. et al., "Secretion and localized transcription suggest a role in positional signaling for products of the segmentation gene <i>hedgehog</i> ", <i>Cell</i> <u>71</u> :33-50 (1992).
PE	Lee, J. J. et al., "Autoproteolysis in hedgehog protein biogenesis", <i>Science</i> <u>266</u> (5190):1528-1537 (Dec. 1994).
PF	Lee, S. J. "Expression of growth/ differentiation factor1 in the nervous system: Conservation of a bicistronic structure", <i>Proc. Natl. Acad. Sci. USA</i> <u>88</u> :4250-4254 (Year).
PG	Levin, M. et al., "A molecular pathway determining left-right asymmetry in chick embryogenesis", <i>Cell</i> <u>82</u> (5):803-814 (Sept. 8, 1995).
PH	Li, W. et al., "Function of protein kinase A in hedgehog signal transduction and drosophila imaginal disc development", <i>Cell</i> <u>80</u> (4):553-562(Feb. 1995).
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PK	Ma, C. et al., "Molecular cloning and characterization of rKik10, a cDNA encoding T-kininogenase from rat submandibular gland and kidney", <i>Biochem.</i> <u>31</u> (44):10922-10928 (1992).
PL	Ma, C. et al., "The segment polarity gene <i>hedgehog</i> is required for the progression of the morphogenetic furrow in the developing Drosophila eye", <i>Cell</i> <u>75</u> :927-938 (1993).
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PN	Marigo, V. et al., "Biochemical evidence that <i>patched</i> is the hedgehog receptor", <i>Nature</i> <u>384</u> :176-179 (1996).
PO	Maccabe, J. A. and B. W. Parker, "The target tissue of limb-bud polarizing activity in the induction of supernumerary structures", <i>J. Embryol. Exp. Morph.</i> <u>53</u> :67-73 (1979).
PP	Maiese, K. et al., "Protein kinases modulate the sensitivity of hippocampal neurons to nitric oxide toxicity and anoxia", <i>J. Neurosci. Res.</i> <u>36</u> :77-87 (1993).
PQ	Marti, E. et al., "Distribution of Sonic hedgehog peptides in the developing chick and mouse embryo", <i>Devel.</i> <u>121</u> (8):2537-2547 (Aug. 1995).
PR	Marti, E. et al., "Requirement of 19K form of Sonic hedgehog for induction of distinct ventral cell types in CNS explants", <i>Nature</i> <u>375</u> (6529):322-325 (May 1995).
PS	Mavillio, F. et al. "Activation of four homeobox gene clusters in human embryonal carcinoma cells induced to differentiate by retinoic acid", <i>Differentiation</i> <u>37</u> :73-79 (1988).
PT	McGinnis, W. and R. Krumlauf, "Homeobox genes and axial patterning", <i>Cell</i> <u>68</u> :283-302 (1992).
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PV	Mohler, J. and K. Vani, "Molecular organization and embryonic expression of the <i>hedgehog</i> gene involved in cell-cell communication in segmental patterning of <i>Drosophila</i> ", <i>Devel.</i> <u>115</u> :957-971 (1992).
PW	Morgan, B. A. et al., "Targeted misexpression of <i>Hox-4.6</i> in the avian limb bud causes apparent homeotic transformations", <i>Nature</i> <u>358</u> :236-239 (1992).
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PY	Ngo, J. et al., "Computational Complexity Protein", Merz and LeGrand, ed. @ Birkhouse Boston (1994).
PZ	Niswander, L. and G. R. Martin, "FGF-4 and BMP-2 have opposite effects on limb growth", <i>Nature</i> <u>361</u> :68-71(1993).
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